

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1.(currently amended) A method for reducing a content of contaminating metals in ionic form present in aqueous effluents, comprising:

(a) providing an aqueous effluent comprising at least a metal  $M_i$  in ionic form, the metal  $M_i$  being at least one selected from the group consisting of scandium, yttrium, lanthanum, actinium, titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, tungsten, manganese, technetium, iron, ruthenium, cobalt, rhodium, nickel, platinum, copper, silver, zinc, cadmium, mercury, aluminum, gallium, indium, thallium, silicon, germanium, tin, lead, arsenic, antimony, bismuth, selenium, tellurium, polonium, iodine, astatine, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium, thorium, protactinium, uranium,

neptunium, plutonium, americium, curium, berkelium, californium, einsteinium, fermium, mendelevium, nobelium and lawrencium, alone or in admixture;

(b) treating the aqueous effluent with at least a metal  $M_h$  completely or partially coated with hydrogen during the treatment of the metal ion(s)  $M_i$ , wherein the metal ions  $M_i$  are chemisorbed on the metal  $M_h$ ; and

(c) recovering an aqueous effluent from which the metal  $M_i$  has been eliminated or its content reduced.

2.(previously presented) The method according to claim 1, wherein the metal  $M_h$  comprises one or more metals selected from the group consisting of elements of Groups Ib, IIb, IIb, IVb, Vb, VIb, VIIb and VIII of the Periodic Table of elements.

3.(previously presented) The method according to claim 1 wherein the metal  $M_h$  comprises one or more metals selected from the group consisting of elements of Groups Ib, VIIb and VIII of the Periodic Table of elements.

4.(previously presented) The method according to claim 1, wherein the metal  $M_h$  comprises one or more metals selected from the group consisting of iron, ruthenium,

osmium, cobalt, rhodium, iridium, nickel, palladium and platinum.

5.(previously presented) The method according to claim 1, wherein the metal  $M_h$  comprises one or more metals selected from the group consisting of nickel, cobalt, palladium, iridium, ruthenium, rhodium and platinum.

6.(previously presented) The method according to claim 1, wherein the metal  $M_h$  comprises nickel.

7.(previously presented) The method according to claim 1, wherein the metal  $M_h$  is completely or partially coated with hydrogen before the treatment of the metal ions  $M_i$  which are present in the aqueous effluent.

8.(canceled)

9.(canceled)

10.(currently amended) The method according to claim 1, wherein the metal ions  $M_i$  are the ionic forms of the elements or combinations of elements selected from the group consisting of scandium, yttrium, lanthanum, actinium,

titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, tungsten, manganese, technetium, ~~rhodium~~, iron, ruthenium, ~~osmium~~, cobalt, rhodium, ~~iridium~~, nickel, ~~palladium~~, platinum, copper, silver, ~~gold~~, zinc, cadmium, mercury, aluminum, gallium, indium, thallium, silicon, germanium, tin, lead, arsenic, antimony, bismuth, selenium, tellurium, polonium, iodine, astatine, cerium, europium, uranium, neptunium and plutonium, alone or in admixture.

11.(currently amended) The method according to claim 1, wherein the metal ions  $M_i$  are the ionic forms of the elements or combinations of elements selected from the group consisting of titanium, vanadium, chromium, manganese, iron, cobalt, nickel, platinum, copper, silver, ~~gold~~, zinc, cadmium, mercury, aluminum, lead, arsenic, antimony, bismuth, selenium, polonium, cerium, uranium, neptunium and plutonium, alone or in admixture.

12.(previously presented) The method according to claim 1, wherein the metal ions  $M_i$  are the ionic forms of the elements or combinations of elements selected from the group consisting of tin, chromium, cobalt, nickel, copper, zinc, cadmium, mercury, lead, arsenic, antimony, selenium,

polonium, uranium, neptunium and plutonium, alone or in admixture.

13.(previously presented) The method according to claim 1, wherein the metal  $M_h$  is deposited on a support.

14.(previously presented) The method according to claim 1, wherein the method is carried out at temperatures in the order of between approximately 0°C and 200°C.

15.(previously presented) The method according to claim 1, wherein the method is carried out with aqueous effluents whose pH value is in the order of between approximately 1 and approximately 14.

16.(previously presented) The method according to claim 1, wherein the aqueous effluent to be processed is water from groundwater tables, surface water, water distribution networks or industrial water, waster water, slurries or industrial waste.

17.(withdrawn) A decontamination kit comprising at least a metal  $M_h$ , which is intended to be utilized in the method according to claim 1.

18.(previously presented) The method according to claim 1, wherein the method is carried out at temperatures in the order of between approximately 0°C approximately 80°C.